

### Abstract

Provided are optical glass exhibiting a refractive index ( $n_d$ ) in a range of 1.75 to 1.87, an Abbé number ( $v_d$ ) in a range of 30 to 45, and excellent low-temperature softening properties even when not incorporating  $Ta_2O_5$  as well as permitting a low production cost; a precision press molding preform and an optical element comprised of such glass; a method of manufacturing the preform; and a method of manufacturing the optical element. The optical glass comprises, in a molar percent, 30 to 45 percent of  $B_2O_3$ , 2 to 15 percent of  $SiO_2$ , 10 to 20 percent of  $La_2O_3$ , 1 to 10 percent of  $TiO_2$ , 10 to 30 percent of  $ZnO$ , 2 to 15 percent of  $Li_2O$ , higher than 0 percent and 10 percent or less of  $WO_3$ , 0 to 15 percent of  $Nb_2O_5$ , and 0 to 10 percent of  $ZrO_2$ , wherein the total amount of the above-mentioned components is higher than 95 percent, the glass exhibits a refractive index ( $n_d$ ) in a range of 1.75 to 1.87, and an Abbé number ( $v_d$ ) in a range of 30 to 45. The precision press molding preform and the optical element are comprised of the glass. In the method of manufacturing a precision press molding preform, the preform comprised of the optical glass is formed. The method of manufacturing an optical element employs the precision press molding preform.